Appl. No.: 10/723,079
Amdt. Dated: 03/27/2006
Off. Act. Dated: 12/27/2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): An apparatus for controlling video and audio components distributed over a power-line communications (PLC) network, comprising:

a server configured for controlling the communication of video and audio streams between any media devices connected as clients for communicating over said power-line communications (PLC) network with said server;

means for rerouting a command, received by a first media device from a wireless remote control device, through said first media device to said power-line communications (PLC) network in response to recognizing that said command does not match commands specific to said first media device; and

means for interpreting commands, received from at least one of said media devices and communicated to said server, [[and]] for controlling the communication of media content to and/or from said media devices and said server in response thereto.

2. (previously presented): An apparatus for controlling video and audio components distributed over a power-line communications (PLC) network, comprising:

a server configured for controlling the communication of video and audio streams between media devices connected for communicating over a power-line communications (PLC) network;

a first media device configured for communicating with said server over said power-line communications (PLC) network;

a power-line communications (PLC) interface coupled to said media device for communicating with said server connected over said power-line communications (PLC) network; and

programming associated with said media device for,

interpreting a command code received from a wireless remote control device;

recognizing that the command code does not match commands specific to said media device; and

rerouting said command by passing said command through said power-line communications (PLC) interface to said server which is configured for controlling the operation of a second media device connected over said power-line communications (PLC) network.

3. (original): An apparatus as recited in claim 2, wherein said server operates as a media server and media devices configured for communicating with said server over said power-line communications network operate as clients of said server according to a client-server model.

4. (previously presented): An apparatus as recited in claim 2, wherein said second media device is configured for receiving commands from said server over said power-line communications (PLC) network and for receiving and/or transmitting media content over said power-line communications (PLC) network to, or from, said server.

5.. (previously presented): An apparatus as recited in claim 4, wherein said first media device is configured for responding to commands received from the wireless remote control unit.

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6. (previously presented): An apparatus as recited in claim 5, wherein said first media device is configured for receiving commands comprising infrared signals from the wireless remote control unit.

7. (previously presented): An apparatus as recited in claim 5, wherein said first media device is configured with command parsing routines for communicating selected commands, including commands not directed at said first media device, as received from said wireless remote control unit and communicated to said server over said PLC network.

8. (previously presented): An apparatus as recited in claim 2, wherein said media device may be selected from the group of media devices consisting essentially of television sets, video monitors, audio systems, surround sound systems, speakers, computer devices, personal computers, video and/or audio recording units, video and/or audio playback units, still image capture or playback units, and AC adapters configured for communicating with a media device coupled to said AC adapter.

9. (original): An apparatus as recited in claim 2, further comprising means for encrypting and decrypting data communications between said server and said media devices over said power-line communications (PLC) network.

10. (original): An apparatus as recited in claim 2, wherein said server is configured for receiving video and/or audio content from a content source.

11. (previously presented): An apparatus as recited in claim 10, wherein said content source may be selected from the group of content sources selected from cable connections, satellite feeds, broadcasting antennas, or content playback devices.

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12. (original): An apparatus as recited in claim 2, further comprising a media storage element connected to said server for the storage of video and/or audio content received from devices over said power-line communications (PLC) network, and/or for the retrieval of video and/or audio content for output from devices over said power-line communications (PLC) network.

13. (original): An apparatus as recited in claim 12, wherein said media storage element comprises a hard disk drive.

14. (original): An apparatus as recited in claim 13, wherein said hard disk drive is incorporated within said server.

15. (original): An apparatus as recited in claim 13, wherein said hard disk drive is external to said server and coupled to said server by a communications link.

16. (original): An apparatus as recited in claim 15, wherein said communication link coupling said hard disk drive to said server comprises an IEEE 1394 interface.

17. (original): An apparatus as recited in claim 2, further comprising means for isolating a virtual network portion of said power-line communications network from other virtual network portions sharing a single physical power line distribution transformer.

18. (original): An apparatus as recited in claim 17, wherein said means for isolating said virtual network portion comprises a blocking filter connected to the power line for isolating portions of said physical power-line from one another.

19. (previously presented): An apparatus as recited in claim 2, wherein select remote control operating commands, which are not utilized by said first media device receiving the commands from the remote control unit, are routed to a server for controlling additional media devices operably coupled to said server.

20. (original): An apparatus as recited in claim 19, further comprising an infrared (IR) mouse connected to said server for converting commands from said server into infrared (IR) commands configured for being received and interpreted by a media device having an infrared (IR) control port.

21. (previously presented): An apparatus as recited in claim 20:

wherein said server is configured for sending commands through said infrared (IR) mouse to media device not configured with a PLC interface; and

wherein said server is configured for sending commands over said infrared (IR) mouse in combination with controlling the receipt or transmission of video and/or audio streams from said media device.

22. (original): An apparatus as recited in claim 2, further comprising means for adjusting decoding latency between media devices connected to said power-line communications (PLC) network to synchronize output timing.

23. (original): An apparatus as recited in claim 22, wherein said means for adjusting decoding latency is executed by said server for controlling decoding delay within said media devices configured for connection to said power-line communications network.

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24. (previously presented): An apparatus as recited in claim 22, wherein said means for adjusting decoding latency comprises increasing or decreasing buffering of streams for one or more devices to change the decoding delay.

25. (original): An apparatus as recited in claim 2, further comprising means for live pausing of content being viewed, wherein after un-pausing play the programming can be viewed without loss.

26. (original): An apparatus as recited in claim 25, wherein said means for live pausing stores content upon a storage device for delayed playback and while paused continues to store the programming for later resumption from the paused location.

27. (original): An apparatus as recited in claim 2, further comprising means for controlling media access within said power-line communications (PLC) network.

28. (original): An apparatus as recited in claim 27, wherein parental controls are established for limiting content access by viewing location, by password, or by biometric identifier.

29. (original): An apparatus as recited in claim 28, wherein multiple levels of said content limits are established.

30. (original): An apparatus as recited in claim 2, further comprising means for locking the operations of a first media device for which commands have been received from a second media device, said locking preventing media devices other than said second media device from altering the operations of said first media device.

31. (original): An apparatus as recited in claim 30, wherein said means for locking may be bypassed utilizing a password or access token.

32. (original): An apparatus as recited in claim 2, further comprising means for controlling the portion of said bandwidth to be utilized by a given media device configured for communication over said power-line communications network with said server.

33. (original): An apparatus as recited in claim 32, further comprising means for prioritizing bandwidth utilization among media devices configured for communication over said power-line communications network.

34. (original): An apparatus as recited in claim 2, further comprising means for communicating multiple video and/or audio streams to a given media device from said server.

35. (original): An apparatus as recited in claim 34, wherein said multiple video and/or audio streams are communicated to a media device configured for displaying picture-in-picture.

36. (original): An apparatus as recited in claim 2, further comprising an AC adapter configured for powering an electronic device unable to operate directly from AC line power.

37. (original): An apparatus as recited in claim 36:

wherein said AC adapter is configured for communicating data between said electronic device and devices coupled to the AC power-line;

wherein said AC power line is to be utilized as a power-line communications network.

38. (original): An apparatus as recited in claim 37, wherein said electronic device unable to operate directly from AC line power is a portable device.

39. (original): An apparatus as recited in claim 37, wherein said electronic device unable to operate directly from AC line power is selected from the group of electronic devices consisting essentially of flat panel displays, still cameras, video cameras, personal digital assistants, cellular phones, laptop computers, audio recorders, audio players, printers, scanners, modems, routers, hubs, switches, telephones, and wireless access points.

40. (currently amended): An apparatus configured for communicating video and audio streams over a power-line communications network in response to being remotely controlled by a server, comprising:

a media device configured for inputting or outputting video and/or audio streams as a client under the direction of a server;

a power-line communications interface, coupled to said media device, and configured for communicating commands as well as video, audio, or a combination of video and audio streams;

means for wirelessly receiving control signals at said media device from a remote control unit; and

means for rerouting a portion of said control signals which have been received wirelessly at said media device from said remote control, said portion including ~~those~~ control signals which are not directed for use by said media device, said control signals being rerouted over said power-line communications (PLC) network for receipt by a remote media server.

41. (previously presented): An apparatus as recited in claim 40, wherein the remote media server is configured for controlling the communication of media streams over said power-line communications (PLC) network.

42. (original): An apparatus as recited in claim 41, wherein said media device coupled to said power-line communications network is configured for receiving media content input or transmitting media content output in response to commands received from said media server.

43. (original): An apparatus as recited in claim 40, wherein said media device is selected from the group of media devices consisting essentially of video display devices, audio output devices, video recording devices, video playback devices, audio recording devices, audio playback devices, and combinations thereof.

44. (original): An apparatus as recited in claim 40, wherein said media device comprises a television set.

45. (original): An apparatus as recited in claim 40, wherein said means for receiving control signals comprises an infrared (IR) receiver on said media device which is configured for receiving signals from an infrared remote control device.

46. (previously presented): An apparatus as recited in claim 45, wherein said means for communicating selected control signals comprises:

a circuit configured for receiving control signals; and

programming configured for,

recognizing that a command does not match commands directed at said media device; and

encoding said control signals, which do not match commands directed at said media device, upon said power-line communications network for receipt by another media device connected to said power-line communications network;

wherein said control signals are unknown or do not match commands executed by said media device.

47. (previously presented): An apparatus as recited in claim 40, wherein multiple said media devices are connected to one another over a power-line communications (PLC) network and configured for receiving operational commands from a media server also coupled to said power-line communication (PLC) network.

48. (previously presented): An apparatus configured for communicating video and audio streams over a power-line communications network, comprising:

a media device configured for inputting or outputting video, audio streams, or a combination of video and audio streams, as a client under the direction of a remote server communicating over a power-line communications (PLC) interface with said media device;

a wireless communications interface coupled to said media device configured for receiving commands from a wireless remote control device;

a power-line communications interface coupled to said media device configured for transferring digitally encoded streaming video, audio, or a combination of audio and video over a power-line communications (PLC) network for input to said media device, or for output from said media device; and

programming on said media device for,

interpreting a command code received from a wireless remote control device,

recognizing that the command code does not match commands specific to said media device,

rerouting said command by passing said command through said power-line communications (PLC) interface to said server which is configured for controlling the operation of a second media device connected over said power-line communications (PLC) network.

49. (original): An apparatus as recited in claim 48:

further comprising means for receiving operating commands over said power-line communications interface from other devices communicating over said power-line communications (PLC) network;

wherein said operating commands comprise commands directing media input, and/or media output for said media device.

50. (original): An apparatus as recited in claim 48, further comprising means for adjusting input or output latency for said media device to synchronize input or output timing with other media devices also coupled to said power-line communications network.

51. (previously presented): An apparatus as recited in claim 50, wherein said means for adjusting latency comprises a circuit for altering the encoding or decoding latency of a content stream to, or from, said media device.

52. (original): An apparatus as recited in claim 51, wherein said circuit for altering the encoding or decoding latency is configured to modulate the depth of buffering in response to changes in the encoding or decoding latency.

53. (original): An apparatus as recited in claim 48, further comprising means for executing a plug-in-play interface for communicating operating parameters of said media device over said power-line communications (PLC) interface.

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54. (original): An apparatus as recited in claim 48, wherein said media device is selected from the group of media devices consisting essentially of video display devices, audio output devices, video recording devices, video playback devices, audio recording devices, audio playback devices, and combinations thereof.

Claims 55-58 (canceled)

59. (previously presented): An apparatus as recited in claim 1, wherein said means for rerouting commands comprises:

programming within said first media device for,

parsing commands received from said wireless remote control device,

recognizing remote control commands received wirelessly that are not directed at controlling said first media device,

rerouting said commands not directed at controlling said first media device over the power-line communications (PLC) network to other devices.

60. (previously presented): An apparatus as recited in claim 2:

wherein said first media device is a television configured for wirelessly receiving commands from a wireless remote control device to control aspects of local viewing in response to receipt of a first portion of the commands from the wireless remote control device; and

wherein a second portion of the commands received from said remote control device are not executed by said television set but instead are rerouted by the television over said power-line communications (PLC) network for receipt by a server which interprets the command to control operations of the server or other media device.

61. (previously presented): An apparatus as recited in claim 7:

wherein said media device is a television configured for wirelessly receiving commands from a wireless remote control device to control aspects of local viewing in response to receipt of a first portion of the commands from the wireless remote control device; and

wherein a second portion of the commands received from said remote control device are not executed by said television set but instead are rerouted by the television over said power-line communications (PLC) network for receipt by a server which interprets the command to control operations of the server or other media device.

62. (previously presented): An apparatus as recited in claim 40:

wherein said media device is a television configured for wirelessly receiving commands from a wireless remote control device to control aspects of local viewing in response to receipt of a first portion of the commands from the wireless remote control device; and

wherein a second portion of the commands received from said remote control device are not executed by said television set but instead are rerouted by the television over said power-line communications (PLC) network for receipt by the server which interprets the command to control operations of the server or other media device.